

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously presented) A purified or isolated protein comprising a 55 kD polypeptide from *Neisseria gonorrhoeae*, wherein the molecular weight of the 55 kD polypeptide is determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis under reducing conditions.
- 2-6. (Canceled)
7. (Previously presented) A purified or isolated protein comprising the amino acid sequence of SEQ ID NO:4.
- 8-14. (Canceled)
15. (Currently amended) A vaccine comprising an immunogenic amount of
(a) a purified or isolated protein comprising a 55 kD polypeptide from *Neisseria gonorrhoeae*, wherein the molecular weight of the 55 kD polypeptide is determined by sodium dodecyl sulfate polyacrylamide gel electrophoresis under reducing conditions; ~~or~~
(b) ~~a polypeptide comprising the amino acid sequence of SEQ ID NO:4,~~
in combination with a physiologically acceptable, non-toxic vehicle, wherein the amount is effective to immunize a susceptible female patient against gonorrhea.
- 16-20. (Canceled)
21. (Original) The vaccine of claim 15, wherein the polypeptide is expressed from an isolated nucleic sequence encoding the polypeptide.
22. (Canceled)
23. (Original) The vaccine of claim 15, which further comprises an effective amount of an immunological adjuvant.

24. (Original) The vaccine of claim 15, wherein the polypeptide is conjugated or linked to a second peptide.

25. (Original) The vaccine of claim 15, wherein the polypeptide is conjugated or linked to a polysaccharide.

26-59. (Canceled)

60. (New) A vaccine comprising an immunogenic amount of a purified or isolated protein comprising a polypeptide comprising the amino acid sequence of SEQ ID NO:4 in combination with a physiologically acceptable, non-toxic vehicle, wherein the amount is effective to immunize a susceptible female patient against gonorrhea.

61. (New) The vaccine of claim 60, wherein the polypeptide is expressed from an isolated nucleic sequence encoding the polypeptide.

62. (New) The vaccine of claim 60, which further comprises an effective amount of an immunological adjuvant.

63. (New) The vaccine of claim 60, wherein the polypeptide is conjugated or linked to a second peptide.

64. (New) The vaccine of claim 60, wherein the polypeptide is conjugated or linked to a polysaccharide.

65. (New) A composition prepared by combining the purified or isolated protein of claim 1 with a carrier.

66. (New) A composition prepared by combining the purified or isolated protein of claim 7 with a carrier.

67. (New) A composition comprising the purified or isolated protein of claim 1 in combination with a physiologically acceptable, non-toxic vehicle.

68. (New) A composition comprising the purified or isolated protein of claim 7 in combination with a physiologically acceptable, non-toxic vehicle.